

Patent Application Serial No. 10/781,780  
Attorney Docket No. 52493.000352

**REMARKS**

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The Office Action dated August 23, 2007, has been received and carefully considered. Claims 1-27 are pending in the application.

Reconsideration of the outstanding rejections are respectfully requested.

A. The 35 U.S.C. 103 Rejection Based on Masch

The Office Action asserts that claims 1-6, 12-13, and 21-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Masch (US Pat. No. 5,930,762). This rejection is traversed.

The features of claim 1 are set forth above.

The Office Action asserts, regarding claim 1:

Masch teaches a method for multi-objective portfolio optimization for use in investment decisions based on competing objectives and a plurality of constraints constituting a portfolio problem, the method comprising:

- Generating an initial population of solutions of portfolio allocations; (see column 2, lines 32-65).
- Performing a first multi-objective process, based on the initial population and the competing objectives, to generate a **first interim efficient frontier**; (see column 42, 44, and 15 generally).
- Performing a second multi-objective process, based on the initial population and the competing objectives, to generate a **second interim efficient frontier**; (see column 42, 44, and 15 generally) and
- **Fusing** the first interim efficient frontier with the second interim efficient frontier to create an **augmented efficient frontier** for use in investment decision making. (see column 42, 44, and 15 generally)

These assertions and the 35 U.S.C. 102 rejection are traversed.

Applicant respectfully submits that the Office Action fails to appropriately set forth the basis of the rejection of claim 1. Rather, the Office Action appears to set forth the various clauses of claim 1 and associate those clauses with extensive disclosure of Masch. For example, it is fully unclear what the Office Action interprets to constitute the

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claimed "initial population of solutions of portfolio allocations." The teachings of Masch in column 2, lines 32-65 are not seen to include the generation of such an initial population. Rather, such disclosure of Masch appears to generally relate to the information that is available to a portfolio manager.

Further, the remainder of claim 1 is alleged to be taught by "columns 42, 44 and 15 generally" of Masch. However, the Office Action fails to set forth any guidance as to what manner Masch allegedly teaches such claimed features. For example, what teachings of Masch are alleged to constitute the "first interim efficient frontier" and the "second interim efficient frontier." Under MPEP 706, "the goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity." Applicant submits that the rejection has not been clearly articulated, as required.

The rejection should be withdrawn.

Further, Applicant submits that claim 1 recites a manipulation of particular parameters in a particular manner. For example, claim 1 recites particulars of generating both a "first interim efficient frontier" and the "second interim efficient frontier" through performing respective multi-objective processes based on the "initial population" and the "competing objectives". Claim 1 then recites fusing the "first interim efficient frontier" and the "second interim efficient frontier" to create an "augmented efficient frontier". Thus, claim 1 recites very specific processing. Masch fails to teach such particulars.

The Office Action relies on columns 42, 44 and 15. Applicant notes for example,

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at column 15, line 11, Masch teaches a "regret matrix" **derived from** an "outcome matrix". Masch thereafter describes:

The compressed, highly aggregated results accumulated in the outcome and regret matrices serve two main purposes. First, they allow easy generation of a major category of risk-limiting constraints and therefore help to form and modify the candidate strategies. Second, they permit the strategies to be analyzed and compared.

Further, in the referenced column 42 (claim 1), Masch describes:

- 5) expanding said initial model in said computer memory by adding said risk-limiting derivative constraint to said initial model in said computer memory;
- (6) producing a solution of said expanded model with said added risk-limiting derivative constraint in said computer memory; and
- (7) deriving from said solution of said expanded model a new set of outcome levels for said risk-related activities and displaying said new set of outcome levels in an at least three-dimensional matrix in the form of a graph.

However, these teachings of Masch fail to support the asserted rejection under 35 U.S.C. 102. It is fully unclear how Masch teaches each and every limitation of claim 1.

Applicant respectfully submits that the applied art fails to teach or suggest the features of claim 1 for **at least** the reasons set forth above. Further, claims 22, 26 and 27 are allowable at least for some of the reasons discussed above with respect to claim 1.

In particular Applicant notes the rejection of **claim 22** on pages 4-5 of the Office Action. Therein, the Office Action asserts that such rejection is supported based on the teachings of Masch in column 15. Applicant submits that such disclosure of Masch clearly fails to support such assertions. Withdrawal of the rejection is appropriate.

Further, the various dependent claims recite patentable subject matter at least for their various dependencies on the independent claims, as well as for the additional subject

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matter recited in such dependent claims. Withdrawal of the 35 U.S.C. 103 rejection is appropriate.

**B. The Other 35 U.S.C. 103 Rejections**

The Office Action sets forth various further grounds of rejection under 35 U.S.C. 103. However, Applicant submits that such further proposed modifications of the applied art fails to cure the fundamental deficiencies of Masch, as described above.

**C. Conclusion**

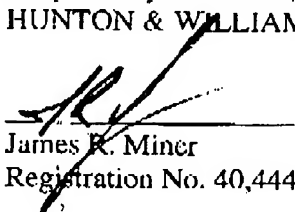
For at least the reasons outlined above, Applicant respectfully asserts that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

For any fees due in connection with filing this Response the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,  
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